

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P884450

Luminaire Tested: **NAV-SB5B-735-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5B-735-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21635 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

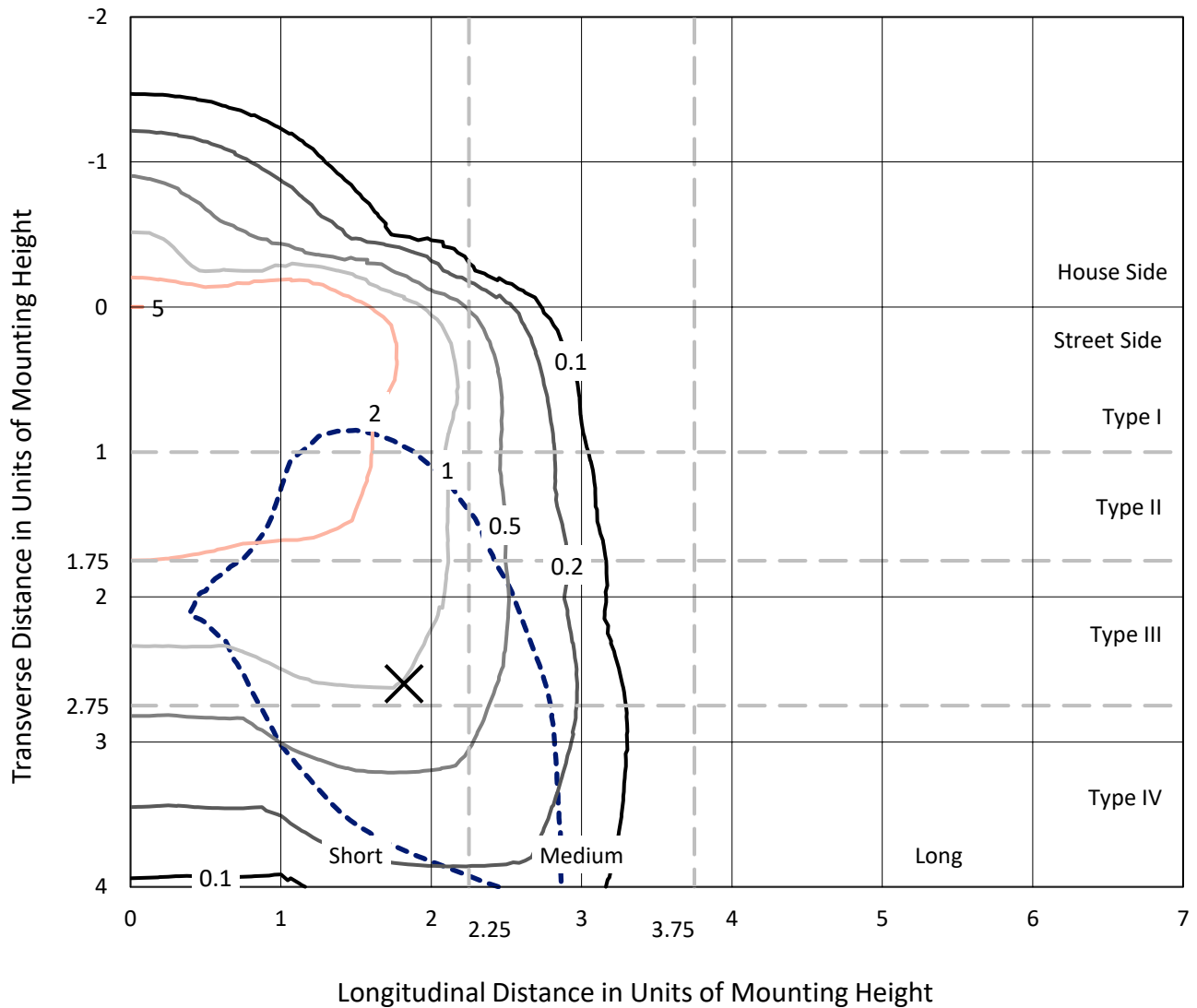
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

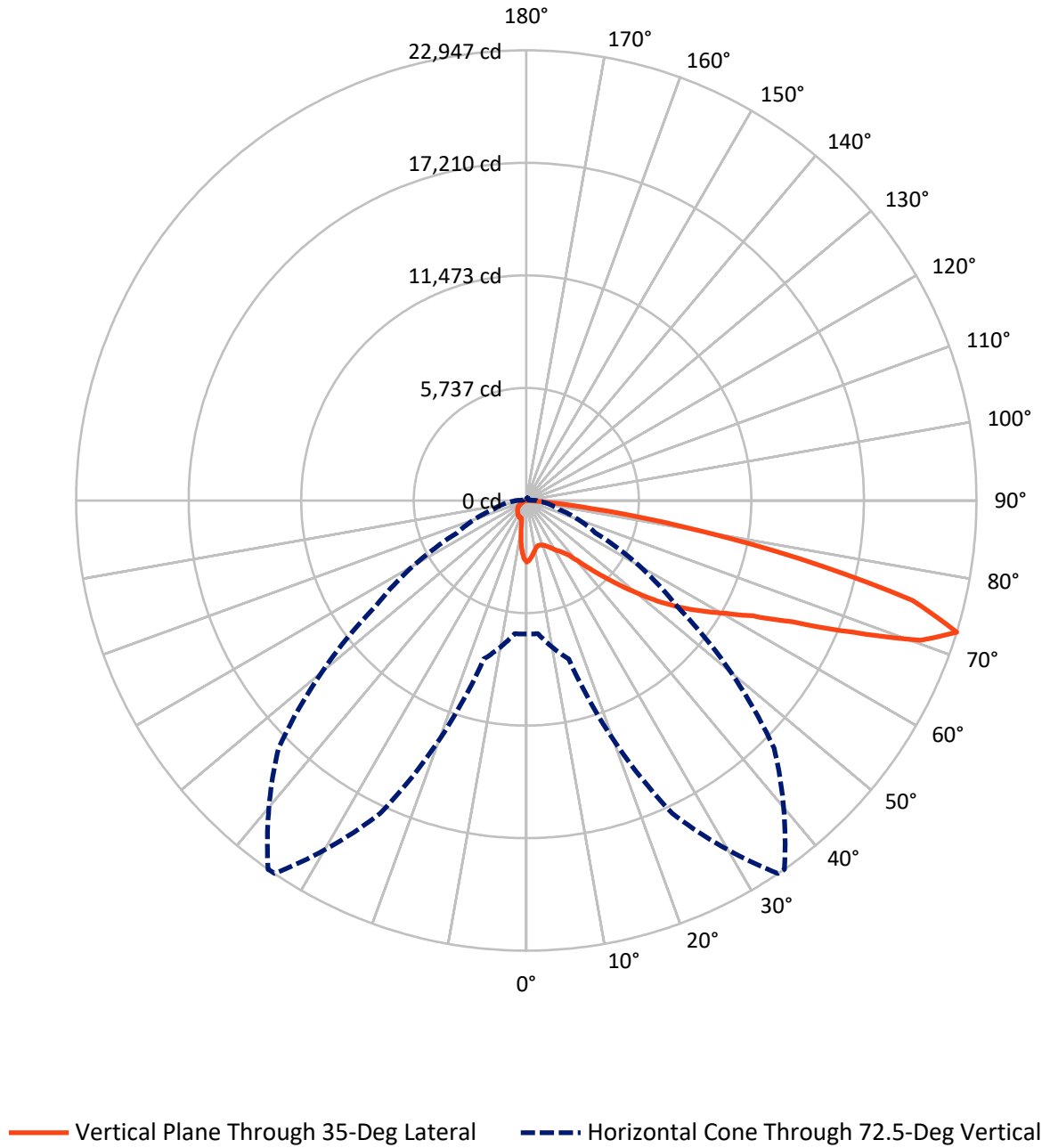
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2434.9	0.0	2434.9
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	19200.1	0.0	19200.1
	% Fixture	88.7	0.0	88.7
Total	Lumens	21635.0	0.0	21635.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.7	1.2
10°-20°	602.8	2.8
20°-30°	979.2	4.5
30°-40°	1633.8	7.6
40°-50°	3091.2	14.3
50°-60°	4911.8	22.7
60°-70°	6076.3	28.1
70°-80°	3777.1	17.5
80°-90°	305.3	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	21635.0	100.0
0°-180°	21635.0	100.0

Coefficient of Utilization



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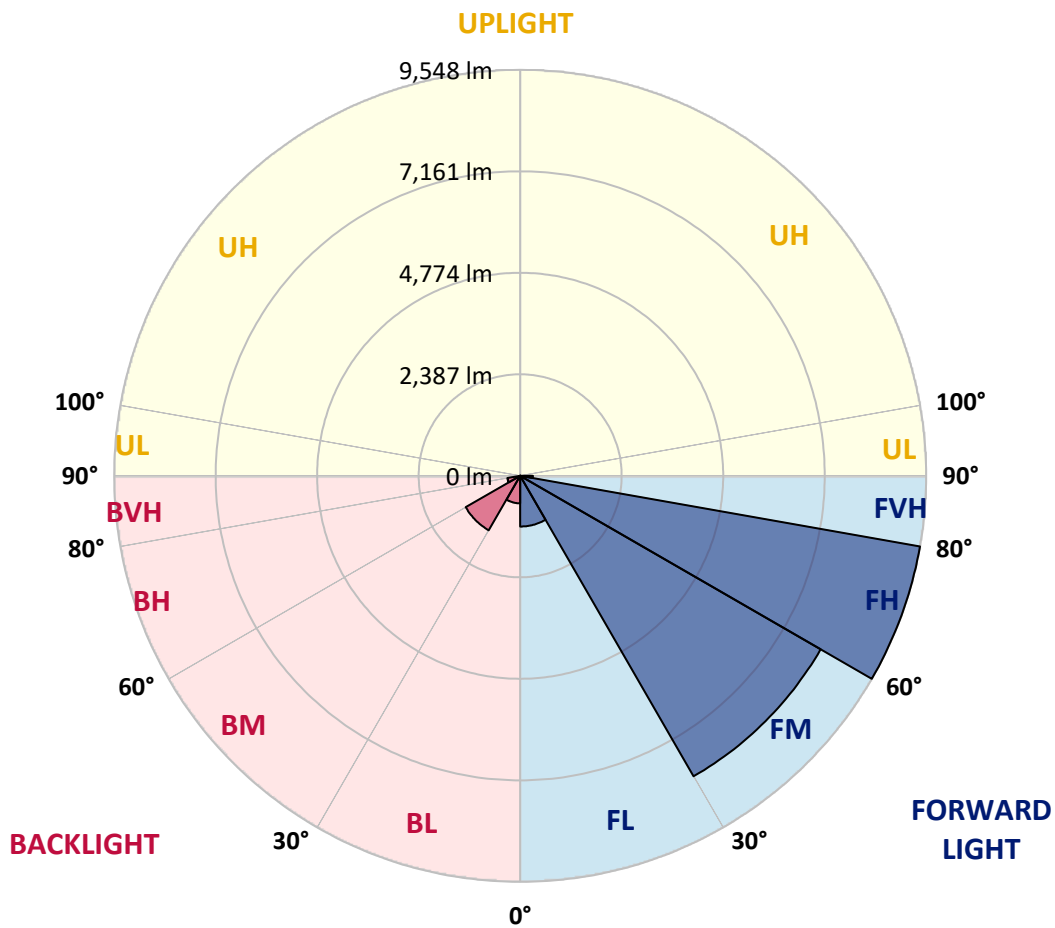
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1192.6	5.5			
FM (30°-60°)	8158.6	37.7			
FH (60°-80°)	9547.8	44.1			G4/12000
FVH (80°-90°)	301.1	1.4			G3/500
BL (0°-30°)	647.0	3.0	B2/1000		
BM (30°-60°)	1478.2	6.8	B2/2500		
BH (60°-80°)	305.5	1.4	B1/500		G1/500
BVH (80°-90°)	4.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6
2.5°	2996.1	3021.5	3026.3	3034.2	3034.2	3043.7	3059.5	3081.7	3118.2	3137.2	3149.9
5°	2761.5	2780.5	2804.3	2823.3	2859.8	2864.6	2926.4	2986.6	3070.6	3134.1	3178.4
7.5°	2525.3	2547.5	2579.2	2625.2	2672.7	2687.0	2780.5	2882.0	3015.2	3134.1	3208.6
10°	2358.9	2360.4	2389.0	2435.0	2511.0	2528.5	2642.6	2786.9	2953.3	3115.0	3237.1
12.5°	2265.3	2276.4	2289.1	2324.0	2396.9	2408.0	2530.1	2699.7	2891.5	3103.9	3270.4
15°	2265.3	2273.3	2281.2	2298.6	2357.3	2366.8	2474.6	2644.2	2859.8	3108.7	3324.3
17.5°	2289.1	2301.8	2295.5	2316.1	2377.9	2384.2	2479.3	2628.4	2858.2	3138.8	3406.7
20°	2346.2	2355.7	2343.0	2355.7	2417.5	2430.2	2528.5	2658.5	2885.2	3191.1	3509.8
22.5°	2436.5	2441.3	2411.2	2420.7	2484.1	2499.9	2614.1	2744.1	2950.2	3275.1	3647.7
25°	2550.7	2560.2	2514.2	2525.3	2585.6	2604.6	2736.2	2872.5	3053.2	3390.9	3823.6
27.5°	2682.3	2687.0	2647.4	2645.8	2723.5	2750.4	2883.6	3031.0	3191.1	3536.7	4045.6
30°	2832.9	2847.1	2809.1	2802.7	2901.0	2923.2	3054.8	3226.0	3394.0	3755.5	4361.0
32.5°	2951.7	2962.8	2940.7	2956.5	3056.4	3073.8	3262.5	3501.8	3712.7	4066.2	4790.6
35°	3123.0	3129.3	3078.6	3107.1	3221.2	3265.6	3546.2	3888.6	4113.7	4456.2	5351.8
37.5°	3742.8	3742.8	3527.2	3386.1	3495.5	3535.1	3934.6	4375.3	4608.3	4979.3	6058.8
40°	4600.4	4586.1	4270.7	3982.2	3967.9	4045.6	4487.9	4988.8	5247.2	5607.1	6854.6
42.5°	5515.1	5492.9	5063.3	4778.0	4730.4	4757.4	5126.7	5745.0	6008.1	6372.7	7710.7
45°	6326.8	6320.4	5927.3	5543.6	5458.0	5543.6	5924.1	6629.5	6818.2	7201.8	8565.1
47.5°	7006.8	7006.8	6719.9	6469.4	6425.0	6475.8	7003.7	7610.8	7593.4	8084.8	9397.4
50°	7789.9	7783.6	7510.9	7403.1	7449.1	7520.5	8246.5	8644.4	8395.5	8951.9	10140.9
52.5°	8338.4	8376.5	8283.0	8265.5	8500.1	8623.8	9508.4	9655.8	9113.6	9774.7	10697.3
55°	8772.8	8817.2	8925.0	9047.1	9498.9	9660.6	10730.6	10614.9	9714.5	10488.1	11017.5
57.5°	9387.9	9324.5	9490.9	9731.9	10462.7	10657.7	11914.8	11520.1	10198.0	11066.7	11052.4
60°	10134.5	10144.1	10172.6	10477.0	11424.9	11675.4	13081.5	12376.1	10508.7	11421.8	10665.6
62.5°	11031.8	11046.1	11104.7	11572.4	12716.9	12953.1	14324.4	13076.8	10651.3	11321.9	9666.9
65°	10970.0	11030.2	11684.9	13284.4	14681.1	14914.1	15774.9	13568.2	10435.7	10408.8	7870.8
67.5°	9993.5	10091.7	11187.2	15329.4	17642.3	17902.3	17528.2	13664.9	9505.2	8094.3	5134.6
70°	8712.6	8747.4	10064.8	17168.3	21071.2	21334.4	19097.6	12601.2	7212.9	4514.8	2300.2
72.5°	6803.9	6811.8	8357.5	17594.8	22932.3	22946.6	17865.8	9354.6	3879.1	1734.3	799.0
75°	4860.4	4812.8	5597.5	14268.9	20175.6	20337.3	13393.8	4388.0	1482.2	819.6	397.9
77.5°	2606.2	2658.5	3167.3	8462.1	13937.6	14213.4	7308.0	1265.0	754.6	558.0	263.2
80°	805.3	849.7	1298.3	3874.4	7894.6	8061.0	2709.2	562.8	526.3	397.9	172.8
82.5°	253.6	263.2	605.6	1628.1	3276.7	3352.8	784.7	318.6	359.9	263.2	101.5
85°	72.9	74.5	269.5	607.2	810.1	825.9	220.4	123.6	206.1	163.3	52.3
87.5°	7.9	25.4	101.5	101.5	71.3	69.8	23.8	26.9	58.7	20.6	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6	3135.6
2.5°	3142.0	3143.6	3123.0	3088.1	3050.0	3018.3	2978.7	2947.0	2924.8	2918.5	2929.6
5°	3164.2	3153.1	3094.4	2988.2	2861.4	2752.0	2629.9	2533.2	2469.8	2442.9	2452.4
7.5°	3197.5	3165.8	3037.4	2828.1	2585.6	2370.0	2151.2	1981.6	1873.8	1819.9	1827.8
10°	3226.0	3162.6	2942.2	2596.6	2225.7	1899.1	1604.3	1399.8	1285.6	1231.7	1233.3
12.5°	3252.9	3161.0	2818.6	2322.4	1819.9	1420.4	1146.1	1044.7	1013.0	1001.9	998.7
15°	3303.7	3165.8	2663.2	2008.5	1415.6	1073.2	973.3	971.8	978.1	974.9	973.3
17.5°	3373.4	3170.5	2487.3	1675.6	1092.2	946.4	941.6	955.9	965.4	960.7	959.1
20°	3463.8	3189.5	2300.2	1345.9	938.5	914.7	925.8	938.5	946.4	938.5	936.9
22.5°	3590.6	3222.8	2095.7	1081.1	889.3	895.7	905.2	919.4	927.4	916.3	914.7
25°	3746.0	3275.1	1894.4	940.1	865.5	873.5	887.7	903.6	913.1	902.0	900.4
27.5°	3947.3	3359.2	1708.9	908.4	841.8	846.5	867.1	890.9	903.6	889.3	889.3
30°	4239.0	3497.1	1548.8	922.6	827.5	816.4	844.9	878.2	892.5	879.8	878.2
32.5°	4625.8	3692.1	1450.5	944.8	821.2	781.5	808.5	851.3	875.1	867.1	867.1
35°	5133.1	3988.5	1412.5	970.2	816.4	745.1	764.1	810.1	851.3	859.2	859.2
37.5°	5748.1	4400.7	1423.6	981.3	802.1	715.0	724.5	764.1	818.0	843.4	849.7
40°	6447.2	4881.0	1487.0	970.2	786.3	689.6	691.2	721.3	768.8	806.9	819.6
42.5°	7168.5	5442.2	1604.3	929.0	772.0	667.4	662.6	683.2	715.0	741.9	753.0
45°	7854.9	6019.2	1720.0	871.9	754.6	645.2	634.1	642.0	648.4	659.5	665.8
47.5°	8454.2	6425.0	1686.7	819.6	730.8	619.8	600.8	597.6	578.6	577.0	575.4
50°	8867.9	6513.8	1498.1	767.3	695.9	591.3	561.2	542.2	508.9	493.0	494.6
52.5°	8999.5	6163.5	1223.8	715.0	638.9	553.3	510.5	480.3	439.1	424.8	423.3
55°	8825.1	5477.1	978.1	651.5	559.6	502.5	455.0	415.3	382.0	364.6	364.6
57.5°	8398.7	4603.6	773.6	577.0	475.6	445.5	397.9	358.3	329.7	312.3	309.1
60°	7691.7	3655.6	611.9	488.3	405.8	383.6	334.5	309.1	283.8	263.2	258.4
62.5°	6618.4	2609.3	480.3	386.8	339.2	313.9	285.3	266.3	236.2	207.7	202.9
65°	5164.8	1596.4	370.9	283.8	272.7	260.0	242.5	225.1	188.6	160.1	155.4
67.5°	3257.7	756.2	264.7	214.0	215.6	209.3	201.3	187.1	160.1	134.7	131.6
70°	1434.7	366.2	174.4	163.3	160.1	160.1	166.5	161.7	136.3	112.6	107.8
72.5°	488.3	196.6	130.0	123.6	115.7	114.1	139.5	134.7	109.4	87.2	82.4
75°	255.2	131.6	95.1	88.8	69.8	84.0	111.0	104.6	77.7	57.1	52.3
77.5°	166.5	93.5	65.0	57.1	39.6	55.5	82.4	72.9	46.0	28.5	25.4
80°	104.6	61.8	38.0	26.9	19.0	30.1	44.4	31.7	17.4	6.3	4.8
82.5°	55.5	31.7	14.3	9.5	7.9	9.5	11.1	7.9	3.2	0.0	0.0
85°	22.2	11.1	4.8	3.2	1.6	0.0	3.2	1.6	0.0	0.0	0.0
87.5°	7.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)